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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,854	12/22/2000	James Morrow	10407/476	7292

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EXAMINER	
PATEL, NIKETA I	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/746,854	MORROW ET AL.	
	Examiner	Art Unit	
	Niketa I. Patel	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gomi et al. U.S. Patent Number: 6,301,634 (hereinafter referred to as "*Gomi*") and further in view of Wells et al. U.S. Patent Number: 6,805,634 B1 (hereinafter referred t as "*Wells*".)

3. **Referring to claims 1, 12, 19, 24**, *Gomi* teaches a generic device controller unit system and a method for facilitating interaction between a processor and any number of peripheral devices [see abstract], the system comprising: a general purpose device controller employing true real time peripheral device control [see column 5, lines 54-56 column 6, lines 20-23 and figure 2, element 270, 260], wherein the device controller interfaces between a non-true real time operating system and the peripheral devices [see column 14, lines 65-67 and column 15, lines 1-11], thereby allowing a non-true real time operating system to implement true real time control of the peripheral devices [see column 6, lines 41-52 and column 2, lines 33-44]; and a data and protocol communications interface, wherein the communications interface connects the processor and the peripheral devices [see figure 2, elements 400, 10, 260, 270], thereby allowing the processor to utilize a single protocol and associated data to communicate with the peripheral devices which may be utilizing protocols and associated data which are different than that used by the processor [see column 2, lines 66-67 and column 3, lines 1-28.]

Gomi is silent regarding ***asynchronous*** true real time peripheral device control however; *Gomi* teaches a PC with a network connection board [see column 13, lines 52-58.] It is well known in the computer art that a network connection board has a UART in order to provide asynchronous transmission on a phone line. *Wells* teaches a network connection board with UART [see *Wells* column 12, lines 52-64.]

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention that it was old and well known in the computer art to get the advantage of using UART in order to provide asynchronous transmission on a phone line. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include UART to get this advantage.

4. **Referring to claims 3, 14, 20, 26**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system functions as a distributed processing environment [see column 2, lines 66-67 and column 3, lines 1-28.]

5. **Referring to claims 4, 27**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system further includes customized system drivers [see column 6, lines 53-67.]

6. **Referring to claims 6, 18, 29**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system interfaces with the non-true real time operating system that functions in a Win32 environment [see column 6, lines 41-52.]

7. **Referring to claims 7, 15, 22, 30**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system is an input/output device interface for a processor to peripheral devices [see column 14, lines 65-67 and column 15, lines 1-11 and figure 2, element 400, 10, 270, 260.]

8. **Referring to claims 8, 16, 31**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system provides real time device control to resource management capabilities of a standard non-true real time operating system [see abstract.]

9. **Referring to claims 9, 17, 23, 32**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system produces true real time peripheral device control without the higher level functionality of the processor [see column 6, lines 15-26.]

10. **Referring to claims 10, 33**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system produces true real time peripheral device control without the processor using a true real time kernel [see column 6, lines 20-52.]

11. **Referring to claims 11, 34**, teachings of *Gomi* as modified by the teachings of *Wells* teaches the system and the method wherein the generic device controller unit system produces true real time peripheral device control without the processor utilizing a layered true real time operating system [see column 6, lines 41-52.]

12. **Referring to claims 5, 21, 28**, teachings of *Gomi* as modified by the teachings of *Wells* teaches a generic device controller unit system and a method for facilitating interaction between

a processor and any number of peripheral devices [see abstract] however does not set forth the limitation wherein Universal Serial Bus is the default communication protocol between the generic device controller unit system and the processor.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention that it was old and well known in the computer art to get the advantage of being able to connect up to 127 peripherals to a processor by using Universal Serial Bus. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Universal Serial Bus to get this advantage.

Response to Arguments

13. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents have been made record of to further show the state of the art as it pertains to UART being part of a network connection board:

Liu et al. U.S. Patent Number: US 2001/0005367 A1

Itkis U.S. Patent Number: 4,455,025

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niketa I. Patel whose telephone number is (571) 272 4156. The examiner can normally be reached on M-F 8:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272 4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP
07/05/2005

KIM HUYNH
PRIMARY EXAMINER
7/7/05